

Mr. Michael T. Davis Pre-Calculus	2.2 Solving Equations using Factoring and Division (1) November 18, 2015
Name: _____	

**Solving Equations with Trinomials with  $a \neq 1$**

1. Solve  $3x^2 - 11x - 4 = 0$

2. Solve  $5y^2 + 12y + 7 = 0$

**Solving Equations with Binomials that are a Difference of Squares**

3. Solve  $x^2 - 25 = 0$

4. Solve  $9k^2 - 49 = 0$

**Solving Equations with Trinomials that are Binomials Squared**

5. Solve  $p^2 - 20p + 100 = 0$

6. Solve  $4w^2 + 20w + 25 = 0$

**Solving Equations with Binomials that are a Difference of Cubes or a Sum of Cubes**

7. Solve  $m^3 - 27 = 0$

8. Solve  $8k^3 + 27 = 0$

**Solving Equations with Binomials with a Common Factor**

9. Solve  $8x^2 - 24x = 0$

10. Solve  $5m^3 - 45m = 0$

**Solving Equations with Trinomials with a Common Factor**

11. Solve  $2x^2 + 10x + 12 = 0$

12. Solve  $3y^3 + 6y^2 - 45y = 0$

**Solving Equations with Polynomials that Factor by Grouping**

13. Solve  $x^3 + 5x^2 + 4x + 20 = 0$

14. Solve  $y^3 + 2y^2 - 9y - 18 = 0$

**Solving Equations that have “Quadratic Form” but are not Quadratic**

15. Solve  $p^4 - 5p^2 + 4 = 0$

16. Solve  $z^4 - 13z^2 + 36 = 0$

### **Solving Equations Using Synthetic Division**

17. Solve  $x^3 + 8x^2 + 19x + 12 = 0$

18. Solve  $x^3 + x^2 - 17x + 15 = 0$